

CS 2202

Assignment in Algorithms and Complexities (Cheat Sheet)

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Submitted to:

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|  | **Time Complexity** | |
| **Sorting algorithm** | **Worst Case Scenario** | **Average Case Scenario** |
| Bubble Sort | O(n^2) | O(n^2) |
| Insertion Sort | O(n^2) | O(n^2) |
| Selection Sort | O(n^2) | O(n^2) |
| Shell Sort | O(n(log (n))^2) | O(n log (n)) |
| Merge Sort | O(n log (n)) | O(n log (n)) |
| QuickSort | O(n log (n)) | O(n log (n)) |
| Heapsort | O(n log (n)) | O(n log (n)) |
| Binsort/Bucketsort | O(n^2) | O(n + k) |
| Radix Sort | O(d(n+k)) | O(d(n+k)) |

Source/s: <http://bigocheatsheet.com/>

<http://ressources.unisciel.fr/algoprog/s00aaroot/aa00module1/res/%5BCormen-AL2011%5DIntroduction_To_Algorithms-A3.pdf>, Introduction to Algorithms 3rd Edition